PHILADELPHIA, AUGUST 28, 1880.

ORIGINAL LECTURES.

CLINICAL LECTURE
ON CANCER OF THE UTERUS AND ABDOMINAL TUMORS.

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Reported by CHARLES W. DULLES, M.D., Surgical Registrar to the University Hospital.

CANCER OF THE UTERUS.

GENTLEMEN,—The first case I show you to-day is one of cancer of the uterus. The diagnosis has been fully established, and I am now going to operate for her relief. We shall not cure her; it is too late for that; but we shall relieve some of her symptoms, lessen her pain and the offensiveness of her discharges for a while, and perhaps add something to her life. I have just seen a case where five years ago I did the operation I am now about to do, thinking at the time that the woman could not live many months, but it is only now that she has a return of her trouble. So the operation is entirely justifiable.

This case is not one for amputation of the cervix, for two reasons. The disease has invaded the body of the womb, and it has eaten away the anterior lip of the cervix, so that the surface is slanting and we could not fix a wire.

I am going to operate by tearing away with my fingers as much as I can, and then scraping with this large spoon-shaped curette. First I bring away a piece about as big as an egg, then many smaller and shreddy pieces; then I use the curette. I scrape carefully, but firmly, guarding and guiding the progress with the fingers of my left hand. Then I take these forceps, which are a good deal like those with which the head of a hare-lip pin is snapped off. They are hollow and ball-shaped at the end, and have sharp edges inside, so that they cut through the tissues and bring the cut-off parts away.

We have not much hemorrhage, which I attribute partly to the scraping; but we have some. So I shall control this, and conclude the operation, by searing the whole raw surface with the Pacquélin cautery heated to redness. If any hemorrhage comes on later, it is to be controlled by putting into the vagina a sponge soaked in vinegar.

Now, what is the prognosis? Very bad. This woman will die. She may get better for a while, but in the end the cancer will return in the womb, or the parts about it, or perhaps at a distance. It may attack the rectum; but, fortunately, these cases generally are released by death before this happens or goes very far. Their system breaks down under the drain of the discharges and the general poisoning by absorption, and they escape the additional horrors of cancer of the bowel.

TUMORS—DIAGNOSIS.

We have here two cases of abdominal tumor, which have been sent by physicians for operation. I have never seen them before. They are not cases for operation to-day, but for diagnosis. I have had them brought into the arena and placed side by side, so that you may see me examine them together.

Case I.—The first is this German woman, with a belly as large as that of a woman at full term, who has also a curious swelling on top of the general tumor. It is soft, and when I squeeze it it collapses. It is an umbilical hernia. When I get her to strain it reappears. Now I will percuss the abdomen. If we have here an ovarian tumor I shall expect to find dulness in front, low down in the abdomen, and resonance over the upper abdomen and the flanks. But I do not! On the contrary, I cannot get resonance anywhere. The whole abdomen seems to be occupied by a fluid. But I do not think it is an ovarian cyst, for another reason. You see when I press with my finger I can push it and the belly-wall far in. I never found I could do this in an ovarian cyst except after tapping. I do not think this fluid is ovarian. I will next examine her heart. Now, I do not want to take more credit to myself than I deserve; so I must tell you that my assistant, Dr. Baer, has examined this woman and told me she has cardiac disease. So I find. There is considerable valvular disease here. Now, that makes me ask another question of the woman. Did she ever have rheumatism? She tells me yes,—seven years ago; also that she has had a shortness of breath, which has caused her a great deal of trouble. On examin-

ing by the vagina I find a little prolapse of the womb, with a trifling retroversion, which usually accompanies prolapse. This is because the womb in descending follows the curve of the sacrum. In its natural position it has a slight anteversion, but as it comes down it turns over backward.

There is no other trouble that I can find about the womb, and so I will turn the case over to the medical wards as an abdominal dropsy due to cardiac disease.

Case II.—Now, our second case looks different. That abdomen, you see, is rather flaccid and flat; this is round and tight as a drum. The woman tells me she has never had any children, but here are lineæ albicantes on the abdomen. They have been caused by the stretching of the walls by the tumor. She says the swelling has been two years and six months in coming, but that she always had some sort of a tumor here. Her menses have been irregular for more than two years. On percussing the abdomen you hear just the opposite of what you did in the other case, —everywhere tympanitic resonance. I cannot find any dulness, except, perhaps, a trifle on the left side, low down, near Poupart's ligament. The patient is very nervous; she cries out frequently when I know I am not hurting her. When I palpate I get a sort of ballottement, which is very curious. It feels like a solid body in a bag of air. Now, I'll tell you what enters my mind. I am thinking out loud. I think of a phantom tumor. But I shall examine further. When I put my finger into the vagina the woman cries out again and again, and I know it is because she is nervous; she is afraid I am going to do some operation; she will not believe me when I tell her I am not. I find that the cervix is obliterated,—that is, it does not protrude into the vagina. It is drawn up, and I cannot feel it at all. I find the os, however, very small and hard to discover. I am sure an unpractised finger would miss it. Now, when I introduce the uterine sound I find the womb three inches long and inclined towards the left side.

The drawing up of the cervix, let me here tell you, is a sign of malignancy. I tell the woman to shut her eyes, and now uncover her face, so that you can see it. There, gentlemen; that face also tells a story of malignancy. See those sunken eyes and hollow cheeks. This is a very different case from the first.

I send the patients out of the room, and can now tell you what I think of the second. I believe she has malignant disease of the womb, or, rather (for I should not say this so fast), of the womb or some of its appendages. She may not have, but I think so now. It is easy to make mistakes in these cases. Both these women came from physicians of skill, and one has been a patient in a hospital in a neighboring city, and both have been sent here with the diagnosis of ovarian tumor in order that we may operate on them. So you see how careful we must be. I do not consider my examination to-day as conclusive. It has been too hurried and superficial. But it will give you an idea how to go about these cases, and how deceptive they may be.

ORIGINAL COMMUNICATIONS.

A COMPARISON BETWEEN THE AUDIPHONE, DENTAPHONE, ETC., AND THE VARIOUS FORMS OF EAR-TRUMPETS FOR THE DEAF.

Read before the Philadelphia County Medical Society, June 23, 1880,

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SOUND is the motion or tremor produced in the molecules of the extreme filaments of the auditory nerve, or nerve of hearing, vibrating in unison with the sonorous or sounding body. The motions of the sounding body are transmitted in pulses or waves through the air, or whatever other medium it may be, into our ears,—first into the auricle or shell; then to the membrana tympani, through the ossicula, or small bones, to the oval window; and from thence, by means of the labyrinth, semicircular canals, and cochlea, to the auditory nerve. From this nerve it is conveyed to the brain, in which it is perceived as noise, musical note, or articulate speech. Certain bodies facilitate the conduction of sounds directly to the ear; others, by the indirect route, convey it by means of the teeth to the bones of the head and the nerve situated in the petrous portion of the temporal bone.

All are now familiar with the name of "Audiphone," as its virtues were heralded by the press as a great boon to the deaf,

and numerous publications, lectures, etc., have been sent broadcast over the land. Numerous experiments have been made, both at home and abroad, to find a cheaper, and perhaps a better, substitute for this object in metal, paper, wood, etc., than the diaphragm of hard rubber, with its fan-like shape and its silken cords to give it a suitable curvature and tension depending on the sounding body, so as to collect the faintest sounds and intensify them and convey them to the teeth. Our unsuccessful experiments and trials with this agent in the case of the deaf-mute have been already reported and published in a lecture before the class of Jefferson Medical College.*

The principle on which all these forms of apparatus applied to the teeth depend is the property possessed by solid bodies of transmitting or conducting sonorous vibrations to the nerve of the ear directly from the bone, which nerve is situated in a bony cavity; and this fact, which has been known for years, is further supported by the experiments of Lucæ and Politzer, published in *Arch. f. Ohrenheilkunde* in 1864, and still more recently by Professor Politzer, of Vienna, in his "Lehrbuch der Ohrenheilkunde" (1879, p. 214). Any one can test for himself, and prove the fact, with the tuning-fork on the head (back or front), shutting up his ears with a plug of any kind; also by the watch held between the teeth. Politzer goes still further, and states that in certain deaf persons words are understood when spoken loudly near the head. Some individuals are stated to hear words spoken near the back of the head. Now, as the auditory nerve is situated in the petrous portion of the temporal bone, we would most naturally infer that the nearer we can get to this bone the better the patient will hear the sound of music or the human voice conveyed to the auditory nerve.

A wooden rod has been suggested and employed to convey sound to the deaf by means of the teeth and bones of the head, and certain kinds of wood are capable of producing musical notes, and are employed to make a musical instrument termed the *claque-bois* of the French. The mode of vibration of a wooden rod fixed at both ends is exactly like that of a string. It vibrates as a whole, and can also divide itself into two, three, four, or more vibrating parts. One of the most interesting instances in which a rod of wood was employed for the relief of deafness was in the case of the celebrated musician Beethoven, who placed one end on the instrument and the other end in his teeth, and in this way was able to enjoy and practise his art by the aid of another performing his compositions for him.

Persons who are only occasionally applied to by the extremely deaf, like the ordinary family physician, are not usually aware of the large number of persons who employ, with great comfort to themselves, the various forms of hearing-trumpets. If we look around in any church-congregation or concert- or lecture-hall, it will be noticed that there are from two to five individuals who use this means of listening, and indeed one or more of these may be met in almost every street-car going in our city. Within the last month I have taken notes of a number, all intelligent and well-educated persons, who have had the opportunity of testing both means of relief to their deafness, and in all but a few cases the hearing-trumpet, in some form, has been preferred. I will briefly report a few cases of this character:

Case I.—I. H., aged 55 years, by occupation a merchant doing a large business, deafness the result of a very severe attack of scarlet fever in his childhood, and has been so deaf ever since as not to be able to hear the speaking voice of any one unless in the very loudest tone. Has employed all the various aids to improve his hearing, but for ordinary conversation and business purposes prefers the conversational tube (see Fig. 16, p. 51, of writer's "Clinical Manual of the Diseases of the Ear"). He has tried the audiphone and dentaphone, but states that he cannot hear, unless the voice of the speaker is so elevated that all his private matters are made known to all around; he also objects to the shape, as being too conspicuous, even in the form of a fan, for a gentleman.

Case II.—Mrs. L., aged 65, a lady of great refinement and cultivation, very active habits, and who lost her hearing after fever following childbirth, nerve deafness, yet can hear her friends if they talk into her ear in a loud tone, and one at a time. Has tried the new apparatus, but would not be seen, she says, with the thing in her mouth all the time. For church and lecture, or opera, she prefers a small pocket ear-trumpet of metal covered with black velvet (as seen in Fig. 18, op. cit., p. 53).

Case III.—R. P., aged 58, a banker, a gen-

* The College and Clinical Record, March 15, 1880, p. 43.

tleman of great intelligence and scientific knowledge, and an amateur musician. He was much interested in the invention of the audiphone, and the inventor, Mr. Rhodes, presented him with an audiphone. He is so deaf that persons have to speak to him in a loud tone, and he uses his hand to increase the reflection of sound into his ear, but he cannot use the new apparatus with any satisfaction without having to turn it to each individual, and he states that he hears some words, but others are lost; he suggests that an improvement might be made in it by having the curve to come round on the sides. This patient has been very deaf for many years; his meatus is very narrow, with retracted and thickened membrana tympani. Hearing distance—right ear, much diminished, so that a loud-ticking watch was only heard when pressed against the temple; left ear, only on pressing the loud-ticking watch in contact with the meatus. Can, however, inflate the middle ear through the Eustachian tubes with effort. Enjoys music, and is a good musician; is able to hear the tuning-fork on his head and teeth. The deafness is the result of fever. He is able by means of a hearing-trumpet to enjoy a concert, but would like very much to have some better aid to his defective hearing.

Case IV.—Mrs. I. S., aged 52, general health fair, very deaf both ears, but the right ear most affected; her deafness is of some fifteen or sixteen years' duration. Has suffered for many years from intermittent fever, fourteen-day chills; she has resided for a long period in a malarious region. Has no pain; hears noises of a singing, grasshopper, and at times roaring sound. Voice has a muffled sound, and indistinct. Has been under treatment, but without benefit; had to resort to a hard rubber short hearing-trumpet, like the

FIG. 1.

form figured in Fig. 1, while a portion of the large end is cut out so as to avoid reverberation, as suggested by Dr. Williams, of London. The audiphone in her case can be used about equally well, but only five or six feet, while with the trumpet double the distance, and she much prefers the trumpet for appearances and convenience. The following is a report of her condition. Meatus of both sides dry and irritable; membrana tympani of right side opaque, sunken, and thickened. On the left, the handle of malleus is seen, but no umbo; the Eustachian tubes open, but much narrowed; inflamed and irritable throat; nose irritable; a loud-ticking watch not heard on contact on either ear; tuning-fork heard in the air, and on the teeth and forehead. Politzer's acoumeter not heard until it touches, when she feels the vibration. Inflated the middle ear with hydrobromic ether, which improved the muffled sound, and applied collodion to draw the membrane back to its natural position. Still under treatment.

Case V.—L. F. M., aged 18, at school, a bright girl, but very deaf unless spoken to in the loudest tones. General health stated to be good. Both ears affected; left ear most affected; duration eight years. Suffered from measles; then her eyes became diseased, almost blind. As the eyes became better she became deaf; this had been pronounced by physicians to be due to throat-deafness or involvement of Eustachian tubes. Never had any discharge from the ears; has slight singing sounds. Previous treatment, syringing the ears, inflation, etc. Meatus very dry; membrana tympani opaque, white, and thickened; Eustachian tube on both sides open, but narrowed. Diseased nose, throat, and tonsils, which latter were very much injected. Watch (loud ticker) not heard on contact; tuning-fork heard on forehead, occiput, and teeth; acoumeter on contact. With the audiphone and its various modifications can hear the voice, but not what is said to her. Tested her with a pair of improved auricles (see Fig. 2). Was able to hear at any distance,

FIG. 2.

and in an ordinary tone. She also tested them by playing on the piano, and, instead of pounding so that she could hear herself play, she touched with taste and modulation. These improved auricles consist of two ram's-horn-shaped trumpets, connected by an adjustable spring passing over the crown of the head. They are flattened on one side in order to fit closer. The mouth-piece, being above the ear, is pointed forward; the neck passing back and downward close to the ear, tapering towards the ear-piece, which is made of soft rubber. In this case they were very *easily concealed*, as she had an abundance of hair, which she draws over them; or they could be covered with a fancy lace cap.

Case VI.—I. C., aged 28, by occupation a machinist. Father and mother both living. His general health good, and very bright. Both ears affected, but the left the more deaf. The duration is eight years; the presumed cause spotted fever, and cold taken when feeble. Slight pain in mastoid region; has a buzzing or whizzing, like letting off

steam or whistle of a locomotive. Has been examined and treated both in London and New York. Meatus dry; membrane tympani drawn inward, but not very opaque on either ear; Eustachian tubes narrow, but open. Tuning-fork heard on teeth and top of the head, and in the air; cannot hear a watch of fifteen feet when pressed against either ear. Audiphone and dentaphone, and modifications, were both employed in every way, but he could only hear the sound of the voice, but no distinct articulation. With a large hearing-trumpet of the dipper form (see Fig. 3) he could hear with ease and comfort when the person spoke into the perforated part, even when sitting at table.

FIG. 3.

Case VII.—Mary I., aged 24, housekeeper, married, father and mother both living. General health not good. Both ears affected, but the right the most. Duration five years. Had specific keratitis from thirteen to sixteen years, with inherited nasal catarrh, etc. Had pain on the top of the head three or four weeks after birth of last child, which was born dead. Glands swollen and abscessed. Has had prolonged treatment of a specific character. Meatus narrowed and irritable; membrana tympani both thickened, white and dry; Eustachian tubes slightly open. Hearing distance, fifteen feet watch on right ear, can just feel it vibrate, but no sound. Hearing distance in left, two and a half inches. Voice very loud and close to the ears. Tuning-fork, right ear, heard in the air, left not. Nose, right side almost closed up with cicatricial tissue and disease of the turbinated bones, involving loss of uvula and tonsils.

The hearing was tested by the audiphone and dentaphone, but neither of these instruments, nor any of their various modifications, was of the slightest use in improving her hearing. With the same hearing-trumpet which was employed in previous case, No. 6, she was able to hear conversation in a loud tone.

Case VIII.—Mrs. I. W., aged 40, residence Pennsylvania. General health fair. Both ears affected, but the left ear the most affected. Duration, many years, the patient states ten years, but on careful inquiry she has been deaf a much longer period. Her husband died of phthisis pulmonalis. The presumed cause of her extreme deafness is catarrh, naso-pharyngeal. Has no pain, no noises, and no discharge, except from the nostrils, which is very profuse every morning. Has been under treatment by various physicians, quacks, Indian doctors, etc. Numerous applications have been made to her meatus, which was very much narrowed. Membrana tympani of left side opaque, but slight reflex. Right membrana tympana very much thickened and drawn inward. Both Eustachian tubes very much narrowed, but open and dry. A loud-ticking watch is not heard in contact with either ear, but very slightly on the bones of the forehead. Tuning-fork heard on forehead, teeth, and top of the head, but not in air.

The patient has ulceration of nasal mucous membrane, turbinated bones swollen and discharging tenacious mucus. Has a sclerosed pharyngeal mucous membrane. This patient's mother was deaf, but it was from injury of drum. This patient was placed under appropriate alterative, tonic, and local treatment, but not given a favorable prognosis. Her hearing was much benefited by the use of the trumpet.

Case IX.—Mrs. P., aged 62, deaf from catarrh of the middle ear about fifteen years. The loudest voice heard only when close to her ear. Her husband has chronic laryngitis from talking to her. Ordinary method of inflation (Politzer) was of no avail; conversational tube of slight benefit; audiphone no results. Auricles before described gave her hearing for moderately loud voice at twenty feet, and for loud whisper at two feet. Large funnel-shaped ear-trumpet not so satisfactory.

Case X.—Mrs. H. B., aged 65, deaf for many years, and can hear the voice when very close to the ear and in a very loud tone; could hear the tuning-fork over the forehead, occiput, and temple. Meatus healthy; membrana tympani of pearly color, and not sunken. Has artificial teeth, which fit well. Her hearing was then tested by the audiphone and dentaphone, but with no improvement, nor did the hearing-trumpet improve this individual's hearing.

Case XI.—Sarah S. M., of Montgomery County, Pa., aged 29; occupation seamstress. Hearing distance, not on contact. Tinnitus (roaring). No discharge. Membrana tympani, right, sunken; handle horizontal, good reflex. Membrana tympani, left, sunken; handle horizontal, good reflex. Eustachian tube not closed. Throat normal. Velum irritable, and posterior space narrow anteroposteriorly. Duration, four months. Hereditation good. Constitution good. Complications uterine. The audiphone was of no benefit, nor was any form of hearing-trumpet.

It has been a question of some importance among dentists to know what denture would best supply the natural teeth when lost. In using the audiphone Dr. Osmun* has instituted a number of experiments to test the merits of each, and he has reported

* The Audiphone, by I. Allen Osmun, D.D.S., M.D. The Independent Practitioner, Baltimore, Md., March, 1880, p. 135.

the results: "A lady who had been deaf for nearly twenty years called at my office to obtain a new denture which would enable her to hear better with the audiphone. The one she was using was on silver, and was ill-fitting. Believing that accuracy of fit was the all-essential point, I naturally advised vulcanite. She, however, had been urged by several of the profession to wear gold, on account of its being a good conductor of sound. Consequently, I made her a set of each base for trial. She reports as follows: 'I can hear very well with the silver plate, better with gold, but with the vulcanite set the tones are much louder and I can hear at a greater distance.'" Not being satisfied with a single trial, he repeated it in a case of a partial denture, with the same results. Result in two patients, both of them preferred the vulcanite denture.

We have repeated a number of experiments with the rod of wood against the musical box, and when the meatus of both ears are closed the sound is as loud with the vulcanite as with the natural teeth. There is very little conduction of sound with the lower teeth. So far as our experience of the use of the vulcanite denture goes, we have found it to be very much superior in fit and finish to the metallic plates of the early times. As for the injury which this denture has done in increasing deafness, producing irritation, etc., it has not yet come under our observation in any of our patients.

The conclusions here arrived at are that, so far as the deaf-mute is interested, the invention, under its present form, is not likely to prove of so much value to him in acquiring articulation. I have always advised the use of the hearing-trumpet in teaching the deaf-mute, by means of which a large volume of sound can be collected, condensed, and transmitted to the nerve of hearing, so as to produce gymnastics of the hearing apparatus and arouse it into action.

It has been stated by the agents of the inventor that in the city of Philadelphia about sixty deaf individuals have been benefited by the audiphone, and now employ this means of improving their hearing. This number, I judge, has been much reduced of late, and the few, to my personal knowledge, who continue to employ the instrument probably do not exceed five, and some of these are decidedly benefited by its use, and are able to enjoy the comforts of home, even a baby's voice, which they never heard before; in one case a reporter, from his being able to hear with this instrument has been advanced in his profession, showing that it certainly increases the acuteness of the hearing; and in the future it may be the means of exciting an interest in the study of the means to improve the hearing powers of the deaf. The instrument may yet be found so modified as to be very valuable.

In receiving this means we must not ignore or despise the various equally useful hearing-trumpets which have been from the earliest times employed by the deaf, and which of late years have been improved in form and in quality to receive and convey sounds to the ear, increasing the acuteness in a larger proportion than either form of the audiphone or dentaphone.

The results of our experiments are as follows: in the ten cases of deafness only one was decidedly improved in the acuteness of his hearing by the audiphone, two were not benefited by either apparatus, while six were greatly improved by the various forms of the hearing-trumpet, and the one who could hear about as well with the one as with the other preferred using the hearing-trumpet.

Other impartial observers have tested the audiphone, and found that it falls far short of what its inventor claimed for it. Most of these experiments have been expressed in general terms. Dr. Knapp* and the writer have gone a little more into detail, and the former has made quantitative determinations in a table of fourteen cases. His conclusions are as follows: "The audiphone is not a useless instrument; it increases, in a moderate degree, the hearing power of the majority of very deaf persons. In every case, as far as my examinations have gone, was its value exceeded, and in most cases greatly exceeded, by the ear-trumpet" (as seen in Fig. 3, being a small size of the dipper-shaped instrument which was employed in Case VI.).

I desire to state, in conclusion, that in a very large number of patients who have come with the strong desire to try the audiphone, dentaphone, etc., by judicious treatment of the middle ear, the healing

* Some Observations concerning the Value of the Audiphone. Dr. H. Knapp, Archives of Otology, March, p. 82.

of perforation, etc., or by the use of the artificial membrana tympani, they have gone away so much improved as not to require the use of any form of apparatus to aid their hearing. The improved modes of diagnosis and of treatment, founded on a more perfect knowledge of the anatomy and physiology of these important organs, have done very much to prevent the occurrence of those cases of deafness which when treated early are curable, but, if permitted to run on, by very long-continued chronic inflammation and ulceration will destroy the integrity of the organ itself in its most vital parts. Such unfortunate cases must resort to various mechanical appliances to improve their condition, by bringing a larger volume of sound to the nerve to arouse it to activity, so that the deaf not only can hear sounds, but will also be enabled to distinguish articulate speech. Of such available instruments, I consider that, at present, the hearing-trumpet has the widest range of application.

1502 WALNUT STREET.

THE TREATMENT OF COMPOUND DISLOCATION OF THE ANKLE-JOINT.

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Read before the Philadelphia Academy of Surgery, April 5, 1880.

NO matter of graver import could be presented for the decision of the practical surgeon than that submitted to the Academy for its consideration this evening. The injury in question is of the first magnitude, and its treatment, judicious or otherwise, greatly influences the patient's chances for life. At the first glance it might be supposed that no doubt could possibly arise as to its proper management. In reality, however, the whole matter of treatment would seem to be in an uncertain condition. The weight of published authority is apparently in favor of conservative attempts, whilst the daily practice of many of our best surgeons tends to an opposite course.

In order that the Fellows of the Academy may speak to the point, it is suggested that the discussion of the evening be limited strictly to that form of compound dislocation of the ankle-joint most frequently met with in practice, and with which the Fellows are undoubtedly most familiar. I therefore propose to take a supposititious case:

A man, hale, hearty, in middle life, let us say a laborer, jumps from a height, or is thrown from a wagon. He alights forcibly upon his foot, which from the nature of the ground or the direction of the impact is slightly everted. The fibula gives way two or three inches above the ankle-joint (Pott's fracture, in fact), but the injury does not stop here. The weight of the body and the violence of the fall drive the lower end of the tibia through the integuments, lacerating them in a direction usually more or less oblique, sometimes transverse, to the extent of an inch and a half or more. The internal lateral ligament of the ankle-joint is torn off, and the lower end of the tibia projects through the wound for an inch and a half, or two, or two and a half inches. The tendons are displaced, but not necessarily ruptured. The tibia is not fractured, although the edge of the internal malleolus at the point of ligamentous origin is sometimes slightly abraded. The lower end of the tibia is not infrequently covered with mud and dust where it has been driven into the ground. The finger can readily be passed around the end of the bone and into and through the joint. The fracture of the fibula we will regard simply as an incident in the injury; it does not communicate with the joint. There is not much hemorrhage, and the main vessels and nerves are not torn. The integuments are not involved further than the laceration already indicated.

We have thus before us a true compound dislocation of the ankle-joint, the lower end of the tibia being carried inward and the foot everted. It is not an example of a comparatively mild displacement of the joint, with slight laceration of the integuments, due to the pressure of the point of the malleolus, in which reduction and an expectant treatment are probably indicated. Nor is there here such violent bruising, crushing, and destruction of the soft parts and laceration of the vessels as seem to demand imperatively an immediate amputation. The case submitted is one of injury of middle grade, in which the surgeon hesitates as to the true line of treatment. The shock of the injury is often not very great; the vascular and nervous integrity of the limb is apparently but little disturbed. The patient and his friends deprecate the removal of the foot, and the surgeon himself even stands in doubt as to the necessity of amputation. He turns to his books, and finds that the weight of authority would appear to favor

conservative efforts. Yet this seeming accumulation of authority is in reality only the enforcement of the opinion of one great surgeon, Sir Astley Cooper, which, strongly expressed, has, we think, been followed somewhat blindly by those who since his time have treated of this accident.

In his work on "Dislocations and Fractures," Sir Astley Cooper, after describing compound dislocations of the ankle, says,—

"Is amputation generally necessary in compound dislocations of the ankle? My answer is, certainly not. Thirty years ago it was the practice to amputate limbs for this accident, and the operation was then thought absolutely necessary for the preservation of life by some of our best surgeons; but so many limbs have been saved of late years, indeed, I may say, so great a majority of these cases exists, that such advice would now be considered not only injudicious but cruel. It is far from being my intention to state that amputation is never required. I have only to observe that the operation is unnecessary in the greater number of these accidents."

The treatment in these cases which this great surgeon evidently preferred was—*first*, reduction and expectant measures; *second*, removal of the ends of the bones where there was difficulty in reduction, and as a means of guarding against suppuration and ulceration.

Sir Astley is careful to state that he is not an advocate of either mode of treatment to the exclusion of the other, although he undoubtedly favors conservative treatment except in the following conditions, when he advises amputation:

1. Advanced age of the patient. 2. Extensive lacerated wound. 3. Extreme shattering of the bones. 4. Dislocation of tibia at outer ankle. 5. Difficulty in maintaining reduction. 6. Rupture of large blood-vessels. 7. Excessive contusion. 8. Extensive suppuration. 9. Exfoliation. 10. Mortification. 11. Excessive deformity of foot. 12. Tetanus. 13. Irritable state of constitution.

Sir William Fergusson reiterates the conservative doctrines laid down by Cooper, although he says,—

"I fear, however, that in the attempts which have been made to save the foot the results in all the cases have not met with the same publicity; that the instances where amputation has afterwards been necessary, or where death has been the consequence, have not also been recorded; and, from what I have myself seen, I would counsel the inexperienced practitioner from being over-sanguine in anticipating a happy result in every example."

James Miller, of Edinburgh, and Pirrie, of Aberdeen, follow closely in Sir Astley Cooper's footsteps. Mr. Erichsen, in the last edition of his Surgery, advises the antiseptic dressing in ordinary cases of compound dislocation. Where the bones are projecting and comminuted, the choice, he says, must be made between excision and amputation; the latter procedure he would seem to restrict to cases where the posterior tibial artery is torn, or where the soft parts are greatly injured. To use his own words, "I believe that the disinclination on the part of surgeons to amputate in these cases—greatly owing to the strong expression of opinion by Sir Astley Cooper in favor of the attempt to save the limb—has in many cases been carried to such an extent as seriously to add to the patient's danger."

Mr. Holthouse, in his article in Holmes's System of Surgery on compound dislocations of the foot at the ankle-joint, states that, as a general rule, amputation is improper, and, except under certain circumstances, the preservation of the limb should always be attempted. The circumstances favoring and demanding amputation he thus enumerates: an advanced age of the patient; extensive laceration and contusion of the soft parts, especially if complicated with wounds to the blood-vessels, or with great shattering of the bones. Secondary amputation may be demanded when the conservative attempts have failed, through inflammation, sloughing, hemorrhage, or severe constitutional disturbance.

Malgaigne, in his treatise on dislocations, after stating that I. L. Petit saw no safety except in immediate amputation, adds that he himself in most cases prefers excision to amputation, and in a general way he endorses the views of Cooper, except in cases of amputation upon old people. Nélaton agreed with Cooper in preferring conservative treatment to amputation, and so also did Boyer. In 1819 Dupuytren boasted that he had never made an amputation for this injury. Chelius counsels the removal of projecting ends of bone, and limits amputation to old, weakly persons, to extensive tearings, and to crushing of the bones, and, secondarily, to the occurrence of mortification and wasting suppuration. Dr. Hamilton, of

New York, leans towards excision. Dr. Gross advises immediate amputation in severe compound dislocations, where the wound involves the principal vessels and nerves of the limb, with violent contusion of the integuments, and with extensive comminution of the bones. In less severe cases, where the patient's constitution is sound, he says, "Conservative surgery will often effect wonders, and is always worthy of a trial;" and he adds, "Where the ends of the bone protrude, excision will, as a general rule, be the only safe course." Syme and Druitt both recommend sawing off the ends of the bones. T. Holmes, in his Surgery, remarks that amputation is very frequently the safest course, though in young persons the removal of the ends of the bone will often save the foot. Bryant advises reduction and resection, and restricts amputation to those cases where there is much injury to the soft parts and to the bones, and where the age of the patients forbids the hope of recovery under conservative treatment.

In the "Surgery in the Pennsylvania Hospital"—an epitome of the practice of the hospital since 1756, etc., with some statistical tables—we find the following positive utterances, which have a certain bearing on the question before the Academy:

"The great risk of attempting to save limbs in severe compound injuries of the ankle-joint is strikingly illustrated. We think there is not one of the surgical staff who does not agree in saying that the more he tries the experiment the more he has occasion to regret it."

And again, at page 302:

"*Excisions of the ankle-joint.* We are very decided in opinion as to what to do here in acute cases when operative interference is necessary: amputate rather than cut out the joint. A bad compound fracture of the bones, with exposure of and breaks into the joint, is not to be temporized with. We have elsewhere stated in this book that regret rather than congratulation will mostly follow attempts to save cases of this kind from immediate amputation."

It will thus be evident, from the opinions cited, that from the day of Sir Astley Cooper to the present time almost the entire weight of published surgical authority has been given in favor of the conservative treatment of compound dislocation of the ankle-joint, — that is to say, that in the lightest form of the injury, unaccompanied by much protrusion of the leg-bones, simple reduction, with antiphlogistic and antiseptic dressings, should be relied upon. In the graver variety, where the bones protrude, with ligamentous rupture, but without laceration of the posterior tibial vessels and nerves, excision of the projecting bone or bones should be resorted to. Amputation is deprecated by nearly all writers, and is advised only in those cases where laceration of the vessels has occurred, or where there is great destruction of the soft parts. Even where amputation will probably be necessary, the majority of writers seem to advise first a conservative attempt, and, that failing, a secondary amputation.

Such are the guiding rules enjoined for the treatment of the injury before the Academy. They have come down to us hallowed by time and sanctioned by great names. Do they in truth represent the honest judgments of surgeons of this generation? and are they acted up to in daily practice? These matters demand sober thought. For my own part, I cannot but believe that it is as Mr. Erichsen has said, —that the disinclination of surgeons to amputate, owing to Sir Astley Cooper's strongly expressed opinion, has in many cases been carried so far as to add to the patient's danger.

Now, it must be borne in mind that since the publication of Sir Astley Cooper's views many changes have occurred which go to modify the relation between the injury and the means at the disposal of the surgeon for its relief. The extensive employment of machinery, the increasing use of carriage-conveyance, and the introduction of the street-car all materially affect the character and number of the accident before us. It is true, remarks founded on this basis are hardly applicable to the consideration of the hypothetical case cited, but the advancements made in surgery undoubtedly are. In Sir Astley Cooper's time an amputation was a very grievous matter. It was accompanied by great pain, shock, fear, mental distress, and with more or less hemorrhage. All of these occurrences—each a catastrophe in itself—have vanished before anæsthesia, Esmarch's bandage, and hypodermic medication. The dangers of an amputation have surely relatively decreased, and the surgeon is therefore now warranted in re-

sorting to it more frequently than did his predecessors, and in cases where they would have been deterred from so doing.

In considering this subject, not a few of the older writers, especially among the French, laid much stress upon the comparative value of the limb after reduction and excision as compared with the stump after amputation. This has really little to do with the matter. The question is one simply and purely of the patient's life, which, so far as my own observation goes, is endangered in this injury to a far greater degree than is usually believed.

Unquestionably some patients do recover under conservative treatment, but many die whose lives, I am compelled to believe, might have been saved by timely amputation. And it is just here that a mistake in treatment may happen. Given a healthy adult in middle life with the injury cited, it seems to me that the patient's best chances lie in amputation; but the amputation must be primary. To make first the conservative attempt, and then on its failure to resort to amputation, when engorgement and infiltration of the limb and profuse suppuration had already occurred, was almost to insure an unfortunate result. Under such circumstances the chances of death from exhaustion, pyæmia, and septicæmia are surely greater than in those instances where primary amputation had been performed.

Of course it is not possible to lay down a rigid law to cover all cases. In each instance the patient's age, habits, and previous condition of health are to be regarded. In early life conservative treatment, as we so well know, offers its best results. In such a case, however, as the one stated this evening, I express my belief, based upon clinical observation, that the true and safest course would be found in primary amputation. This, I think, is a line of practice which is in fact followed by many judicious surgeons, who yet hesitate to announce their adherence to a treatment apparently at variance with so much written surgical opinion.

DANGER FROM VULCANITE PLATES IN DENTISTRY.—In a recent paper in the *American Journal of the Medical Sciences* Dr. Sexton states that vulcanite plates (worn in the mouth) produce diseases that are frequently the source of reflex aural disease.

NOTES OF HOSPITAL PRACTICE.

COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

CLINICAL SERVICE OF EDWARD C. SEGUIN, M.D., PROFESSOR OF DISEASES OF THE MIND AND NERVOUS SYSTEM.

Reported for the *Philadelphia Medical Times.*

(Continued from page 574.)

GENERAL PARESIS THE RESULT OF CRANIAL INJURY.

THE patient before you is a man 41 years of age, and a laborer by occupation. About seven months ago, while engaged at his work, a sledge-hammer in the hands of a companion, when raised in the air, and about to be brought down upon a stake which they were driving (or something of this kind), got caught in a pulley overhead, and, thus being deflected from its course, struck him upon the left temple. He was knocked senseless, but it was found that there was no bruising or tearing of the skin. When he recovered consciousness (which he did in quite a short time), he did not suffer from vomiting or headache, and, indeed, had no symptoms whatever until about six weeks ago. At this time he was taken ill, and was obliged to go to bed; but it is impossible, from the man's account of the attack, to form any very definite idea of its nature. He first noticed a weakness and numbness of the hands and feet, and later was troubled with headache, dizziness, and blurring of vision. There was no diplopia, but occasionally he had hallucinations of sight, the imaginary objects that appeared being such as were connected with his daily work. Whether there was really delirium or not it is impossible to say, but there does not seem to be much doubt, from what he says, that there was more or less fever during the illness. This, of course, is a very unsatisfactory history; but we are obliged to content ourselves with it.

One week ago the patient was able to get about again, and since then, in addition to most of the above symptoms, which still remain, he has had considerable nausea and vomiting. The headache is principally located on the left side (that on which the blow was struck, you will remember), but is not confined to that, as it is also felt to some extent in the occipital region. The dizziness is quite marked, and if he rises suddenly from a chair, for instance, it becomes very great. If we practise percus-

sion or palpation on the left side of the head, we find considerable hyperæsthesia in the temporal and parietal regions, which is not the case on the right side. The dynamometer registers only nineteen and twenty-three for the right hand and eighteen and twenty-two for the left. This is exceedingly weak for the grasp of a working-man (not more than about one-half what it should be normally), and, indeed, shows some loss of power since he was first examined by me a few days ago. When he walks, you perceive that he has a very staggering gait, and that he inclines distinctly to the right. Still, it is not at all like the gait of hemiplegia, but resembles very much that of an individual who is convalescent from some acute disease. From the weakness and numbness of the extremities, therefore, we conclude that he has general paresis. The pupils are normal, but the ophthalmoscopic examination shows that there is well-marked atrophy of the right optic nerve, as well as commencing atrophy of the left. There is, however, no neuro-retinitis, the outline of the disk being more distinct than usual. The heart is found to be normal.

On testing the sensibility of the fingers and forehead, it is seen to be quite unimpaired. About the face and forehead there has never been any numbness complained of, but this has been a marked feature in regard to the hands. I have often had occasion to remark on the difference between numbness and anæsthesia, which are so frequently confounded not only by laymen, but also by a large number of physicians. There is really no connection between them, and many years ago Brown-Séquard demonstrated that numbness represents an irritation of a sensory tract, while anæsthesia, on the other hand, expresses destruction of gray matter. Here there is no anæsthesia, the æsthesiometer showing that the sensibility is good both in the forehead and in the fingers. The tongue is protruded in a perfectly straight manner, and there is no evidence whatever of any facial palsy. Over the supra-orbital nerve, as well as the scalp, there is considerable tenderness on pressure. Tendon reflex is found to be more marked than normal. Finally, there is no trouble with the bladder.

This case illustrates very well the remote effects of cranial injuries. The precise diagnosis is, indeed, a matter of some difficulty, but there seems to be little doubt that the lesion here, whatever may be its nature, is bilateral and basal as to location. We infer that it is bilateral because the results produced by it are not confined to one side of the body, and that it is basal because the phenomena in the case are chiefly motor in character, while the intellectual faculties are, apparently, not at all impaired. The staggering gait and other characteristics are plainly in support of this location as the seat of injury, indicating that it is just above the floor of the anterior fossa of the cranium. Whether this patient has at present anything more than a meningitis I am not prepared to state, but still I am of the opinion that his trouble is, at all events, principally meningeal, and that it involves the optic nerves, the crura cerebri, the pons Varolii, and other motor portions. I am not sure, however, that there is no parenchymatous lesion in addition, from the fact that no symptoms are produced as the result of injury to the first and second frontal convolutions of the hemispheres and the white matter beneath them, with the exception of headache in a certain proportion of cases. For instance, large abscesses, as I have previously had occasion to remark, may remain for a long time in this portion of the brain without any suspicion of their presence being entertained.

In the way of treatment, counter-irritation and iodide of potassium are the agents upon which we commonly rely in traumatic meningitis, as well as cerebritis, although the latter is less amenable to any therapeutic measures. At the best, however, I fear that the prognosis in this case is anything but favorable. After a longer or shorter period I should expect epileptiform seizures to ensue; and it is, indeed, a matter of some surprise to me that the patient has not suffered from them before this. What I should recommend here, as the only course of treatment that offers any chance at all of success, would be for the man to keep perfectly quiet at home, remaining the greater part of the time in bed, and that both counter-irritation and the iodide of potassium should be persistently and continuously employed.

I believe that, as a general rule, practitioners of medicine do not have a correct appreciation of the results that are liable to follow a comparatively slight injury to the cranium, and many cases are thought

to have recovered entirely which, if they were to remain under observation for a few months longer, would be found to terminate in very serious cerebral lesions. It is a fact, also, that a large number of children's heads receive injuries from falls, and in other ways, which entirely escape notice, as it is, of course, to the interest of the attendants to conceal their occurrence; and even when parents are aware of them they do not often attach any significance to them. Some time since, I saw the case of a child, in consultation with Dr. Weir, of this city, in which we made a diagnosis of meningeal hemorrhage, although no history whatever could be obtained of a traumatic origin of any such trouble. There were convulsions, followed by unconsciousness and a tetanoid condition, which lasted for several days, when the little patient died. Unfortunately, no autopsy could be obtained, but there could be little doubt of the diagnosis, since, after the death of the child, the nurse, whose conscience seems to have been quickened by the fatal termination of the case, confessed that shortly before the commencement of the illness it had fallen backward and struck its head. The injury thus received was in all probability the determining cause of the meningeal trouble.

Six years ago a boy was brought to this clinic who staggered in his gait, and was found to be the subject of partial paralysis, which affected one side of the body more than the other. He also suffered from violent headache, strabismus, and other symptoms denoting brain-trouble. The diagnosis made was that there was some lesion of the cerebellum, and that this was probably of the character of an abscess. When death at length occurred, it was found, however, that this was not the case, the autopsy revealing the fact that there was cerebritis, with thickening and swelling, which involved the pons Varolii.

Perhaps the most common result of cranial injury is convulsions; and such a traumatic origin is often found in the history of epilepsy. In many such cases we can see the cicatrix where the injury was received; and experience shows that patients suffering from this form of epilepsy are usually incurable. In adults insanity also not infrequently results from the same cause: so that it has been found that out of all cases of insanity from five to eight per cent. are due to concussion, fractures, and other injuries about the head. Some authorities estimate that the percentage is even higher than this. I am fully convinced, therefore, that individuals receiving cranial injuries should receive the most careful attention on the part of their medical attendants, and especially if there is any evidence of concussion present. If a child, for instance, after falling and striking the head turns pale and vomits, it should be kept perfectly quiet, and closely watched for a year following. Every slight symptom that appears should be looked after assiduously, and if the least evidence of paresis manifests itself it should receive the promptest treatment by means of counter-irritation, the iodide of potassium, and other appropriate measures.

Another point. If the injury is about the parietal region we are apt to have local paralysis on the opposite side of the body, because the motor zone in the brain would probably be involved in the lesion resulting. In such cases the best results are often obtained from trephining.

Finally, it is found that brain-tumors quite frequently result from cranial injuries. This at least has been my own experience, although all observers do not concur in this opinion. Did time permit, I might mention a considerable number of instances of such tumors that could be traced to a traumatic origin. Many of you will no doubt recall the case of the boy in the institution on Blackwell's Island which I related to you last week, in which at the autopsy an enormous sarcoma was found that occupied fully one-half of one of the hemispheres. The starting-point of the difficulty had been a fall upon the head, which caused a fracture behind the coronal suture.

I will also allude to one other case, by way of example. Some time since I was called to see a case at Honesdale, Pennsylvania, in which the patient suffered from epileptic attacks and other cerebral symptoms which I need not describe here. On inquiry, I found that he had fallen from a wagon and struck his head, and, although there was no evidence of external injury about the cranium, concussion had undoubtedly been caused by the accident. The diagnosis that I made was meningitis; but after death a tumor as large as an orange was found. This, however, had given rise to marked meningeal lesions, and so I was right, in part at least, after all.

That tumors are not infrequently the result of traumatic causes is not true merely of those of the brain, since it is well known that various kinds of neoplasms are apt to originate in injuries of greater or less severity. Thus, epithelioma of the lip sometimes comes from the slight pressure of a pipe upon the part in smoking, and tumors of the breast, whether cancerous or sarcomatous, very frequently are due to a contusion. In claiming the same traumatic origin for cerebral tumors, I am not, therefore, stating anything that is not in strict accordance with the ordinary laws of general pathology.

TRANSLATIONS.

SULPHATE OF ATROPIA IN INCONTINENCE OF URINE AND ŒSOPHAGISMUS.—Dr. E. Girard (*Bull. Gén. de Thérap.*, June 15, 1880) gives testimony in favor of this means of treatment. In the case of a young soldier who was attacked by nocturnal incontinence of urine after detention in prison, and who had suffered from this affection for a month and a half, Dr. Girard ordered a hypodermic injection of half a milligramme of the neutral sulphate of atropia on retiring. The patient, however, urinated in bed as usual. The same dose next evening was without effect. The third night a whole milligramme was injected, and this was repeated for six nights without success; but on the seventh night the patient did not wet his bed. The subcutaneous injections were continued for the three following nights, diminishing progressively the quantity of atropia. The patient then left the hospital perfectly cured.

A second case was that of a girl of 12, who had been subject to nocturnal incontinence of urine since infancy. The injection of one-half a milligramme of sulphate of atropia was without effect, but on the following evening one milligramme was injected, and the patient passed the first night without wetting the bed in her recollection. For nine successive evenings the same injection was continued, and at the end of that time the little patient was discharged from the hospital perfectly cured.

Dr. Girard also gives the case of a man of 22 years, of nervous temperament, who was suddenly seized with spasm of the œsophagus, accompanied by a choking feeling as if he had swallowed too large a bolus of food. The affection was at first supposed to be an organic stricture of the œsophagus, and the patient was ordered morphia injections and belladonna pills. The latter produced some slight amelioration, but the patient was discharged uncured, and after suffering for a long time came under Dr. Girard's care, who in his paper gives a full account of the symptoms. At first he was ordered pills of morphia; but these failed to give relief. An injection of one milligramme of sulphate of atropia was then administered, the effect of which was surprising. Regurgitation ceased at once, and, except an unusual dryness of the throat, the patient felt perfectly well. The injections were continued daily; after some days the patient began to experience erections followed by ejaculation, but any diminution in the dose was followed by return of the spasm; increased to two milligrammes, with the hope of more quickly cutting off the disease, difficulty of urination set in. For this reason the medium dose was continued for three months, the patient gradually improving, and finally recovering entirely.

A curious fact was observed during the treatment, viz., dilatation of the pupil on that side alone upon which the injection had been made, the pupil on the opposite side responding but slightly.

PHYSIOLOGY OF THE SPHINCTERS.—At a recent meeting of the Société de Biologie (*Le Progrès Méd.*, 1880, p. 472) Dr. Brown-Séquard remarked that Goltz has seen rhythmic movements executed by the anal and vesical sphincters after section of the spinal cord in the dorsal region. Dr. Brown-Séquard has also himself observed exactly similar movements executed by the sphincter vaginæ. He has observed, in addition, that these various rhythmic movements are arrested if one of the great toes is compressed or tickled. This fact agrees with what was long ago demonstrated by Dr. Brown-Séquard, namely, that irritation of the great toe causes the arrest of epileptiform convulsions occurring in certain diseases of the cord.

SYPHILITIC DISEASES OF THE LIVER IN THE ADULT.—From a thesis of Dr. Ed. Delavarenne, recently reviewed in *Le Progrès Médical*, we learn that acquired syphilis may attack the liver at any stage of the diathesis. The doctrine that the early manifestations of syphilis are super-

ficial, and that the later lesions alone are visceral, is very prevalent in the profession; and in the presence of secondary lesions the idea of percussion of the liver, for example, or the spleen never seems to occur. Nevertheless it may be to disease of these organs that the cachectic appearance of some patients with secondary syphilis is due. Dr. Delavarenne's thesis is divided into three parts, in which the author studies the hepatic lesions in the secondary, intermediate, and tertiary stages. He has collected twenty-seven cases of icterus coincident with secondary syphilitic manifestations. But, to put the matter beyond dispute, he considers only those in which the liver is enlarged. The gastric troubles which are found in connection with the hepatic enlargement and icterus are *consequent* upon these symptoms, and therefore cannot be regarded as their cause.

With regard to the pathology of the affection, Dr. Delavarenne says that in early syphilis traces of repeated congestion of the liver are found with the formation in the connective tissue of embryonal elements in a more or less advanced stage of organization. These alterations are produced under the direct influence of the syphilitic virus brought in the blood. Age and sex do not seem to influence the disease. The superficial situation of the organ, exposing it to pressure and violence, may determine the disease in some cases.

Three chief symptoms characterize the disease: hypertrophy, icterus, pain. The hypertrophy manifests itself in from six weeks to two months after the beginning of the syphilitic infection. It may show itself alone or in connection with the other two symptoms. It generally lasts about two months and a half, and is perfectly curable. Icterus only showed itself in one of thirteen cases coming under Dr. Delavarenne's notice. The cause of this icterus is probably an inflammatory growth blocking up and obstructing the course of the bile. This icterus increases for some days, then is stationary for several weeks (sometimes for three months), and then slowly disappears. It presents symptoms similar to those of simple icterus. Pain is very variable, presenting every degree from simple discomfort to severe suffering. It does not last so long as the other symptoms, and is no worse at night than in daytime.

In addition to these symptoms, all the ordinary secondary manifestations may show themselves. The prognosis of the hepatic trouble is not grave, but it augurs ill for the course of the syphilitic disease in general when the liver is attacked at an early period.

Hepatic troubles occurring in the stage of syphilis intermediate between secondary and tertiary present no differences from those shown in the secondary stage.

Tertiary syphilitic hepatitis is found in two forms, interstitial and gummous. They are almost always found together, and appear to be derived from the same anatomical process. Perihepatitis is always present. As to the size of the organ, this may be generally hypertrophied, normal in size, or there may be generalized or partial atrophy. Each one of these conditions corresponds with one stage of the disease. Dr. Delavarenne gives with considerable detail the pathological appearance presented in each of these cases. The symptoms have not been thoroughly studied; so far as known, the first stage is marked by enlargement, following a long time after the early stages of the syphilis, pain, icterus more or less constant and following the other symptoms. Sometimes there is slight ascites. The second stage presents no peculiar symptoms. The third stage shows atrophy of variable form, rarely icterus, ascites remarkable for the rapidity of its invasion, and integrity of the digestive functions. The course of tertiary syphilitic hepatitis is very variable as to its duration; perhaps on an average it may last five months. Absence of gastric troubles, constant enlargement of the spleen, and comparative rapidity of course serve to distinguish syphilitic from simple or alcoholic hepatitis.

SATURNINE APHASIA.—At a recent meeting of the Société Clinique de Paris (*La France Méd.*, 1880, p. 402) M. Ernest Gaucher related the case of a painter, 39 years of age, who had never suffered from any symptoms of lead-poisoning until he went to work in a white-lead factory. Eight days after he had begun work in the factory he was seized with a short but violent attack of colic. Of this he was cured in the hospital, but returned to his work a few weeks later. He had been at work only two days when he suddenly fell unconscious in the workshop. This attack, which was unaccompanied by con-

vulsions, lasted fifteen minutes. He was then taken to the hospital again, when he gave an account of his attacks, and it was at the same time ascertained that he had always enjoyed good health, and had never suffered from syphilis, alcoholism, or hereditary diathesis.

The only symptom presented by the patient, besides the blue line on the gums and the constipation habitual in lead-poisoning, was violent and persistent headache. There was no colic, no vomiting, no nervous symptoms, neither paralysis, anæsthesia, nor trembling. His sight was good; appetite preserved; urine scanty and loaded with salts, but without albumen. Three days later the patient began to suffer with delirium and vertigo, added to the pre-existing cephalalgia; these passed off, however, within twenty-four hours, leaving the headache as bad as ever, but this became slowly better during the succeeding week.

Suddenly, however, at the end of that time the patient was seized with vomiting during the night, and the next morning he was found aphasic.

The aphasia included also incapacity for writing, and the patient, who, instead of "*cette nuit 3 heures*," had written "*ett ar de*," in a trembling hand, thought he had written correctly. Otherwise his intellectual faculties were preserved.

Shortly after the physician's visit the patient fell asleep, and when he awoke in the afternoon the aphasia had disappeared, and left only headache, from which he slowly recovered.

According to Gaucher, this case is unique, none similar having been recorded. Two hypotheses suggest themselves in this case as to the pathogenesis of the aphasia: 1. Functional disturbance, *i.e.*, cerebral anæmia. 2. The presence of lead in the cerebral tissues, with temporary alteration or modification of the anatomical elements under the direct influence of the poison. The aphasia was temporary because the lead was only temporarily in the economy and was being removed.

QUEBRACHO IN DYSPNŒA.—Further researches on the effect of quebracho seem to shake somewhat the enthusiastic reports of earlier investigators. Laquer, in the Breslau Hospital, tried it in twenty-one cases of patients suffering with different varieties of dyspnœa. Instead of the single experiments which had been previously made, the patients were kept on quebracho for several weeks at a time without the simultaneous employment of any other medicine. Improvement was observed in only a comparatively small number of cases. In a larger number (eleven) quebracho did not seem to answer any better than other medicines. In seven cases it was entirely without effect. Occasionally after continued use of the medicine some disagreeable effects were produced, as heat, dizziness, copious salivation, and nausea. Experience showed that the effect was more satisfactory when the respiration was frequent than when it was not. The influence of the medicine was less marked upon the old than upon the young. The quebracho was given so that one to two teaspoonfuls of a solution containing twelve parts of the bark in two hundred parts of water, with forty parts of mucilage, should be taken thrice daily.—*Berliner Klin. Wochens.*; from *Breslauer Aerztl. Gesellsch.*, 1879, No. 24.

PATHOGENESIS OF BASEDOW'S DISEASE.—W. Filehne (*Cbl. f. Med.*, No. 10, 1880; from *Erlanger Physical-Med. Sitzungsber.*) succeeded, by cutting through the anterior fourth of the restiform bodies in rabbits (without injuring the inferior surface of the medulla), in raising the tonus of the vagus so that neither reflex irritation of the vagi would cause slowing nor division of both cause increase of frequency in the pulse. In addition, exophthalmos frequently supervened, even when the cervical sympathetic had been divided: the cause of this was shown to be enlargement of the vessels. In rare cases, swelling of the thyroid gland supervened on the division of the restiform bodies. In a single case galvano-caustic division of the restiform bodies produced all three symptoms of Basedow's disease.

PILOCARPIN IN LEAD COLIC.—Weinberg (*Deutsches Archiv f. Klin. Med.*, Bd. xxiv., Heft 4 and 5) has seen pilocarpin succeed where the ordinary medicines, opium, cathartics, etc., have failed. Doses of 0.02 centigramme subcutaneously injected caused salivation and profuse sweating, with simultaneous decrease in the pain, and a little later copious passages from the bowels. In one case where subcutaneous injection of 0.015 milligramme of pilocarpin did not give relief, an enema containing 0.085 milligramme produced the desired effect.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, AUGUST 28, 1880.

EDITORIAL.

CLINICAL THERMOMETERS.

IT is credibly stated that about eight thousand clinical thermometers are annually sold in this country, more than half of them being of home manufacture. These thermometers vary exceedingly in accuracy, most of them being constructed, or, rather, tested, on a happy-go-lucky principle, which is not conducive to scientific accuracy. The trustees of Yale College, desirous of turning into practical work some of the facilities possessed by their astronomical laboratory, have established a bureau for thermometrical verification. It is not necessary to go into a detailed description of the standards and methods employed. It is sufficient to state that both of these are to be relied on, and that a Yale certificate makes a clinical thermometer a practically perfect instrument.

The enterprise is not a commercial venture, but an attempt at securing accuracy for American scientific instruments, and deserves all encouragement. It is expected, however, that those having thermometers to be corrected shall be willing to pay for a part of the cost to the institution. If four thousand thermometers are corrected yearly, it will be an average expense of fifty-one cents each to the observatory; and the adopted scale of charges is as follows:

"Standard meteorological thermometers	$1.00
Ordinary meteorological thermometers	50
Ordinary maximum thermometers	75
Ordinary minimum thermometers	75
Clinical thermometers	50

"There will be a deduction of one-fifth of the above charges where more than eight thermometers of one kind are received at the same time. In the case of clinical thermometers the charge will be four dollars per dozen when not less than two dozen are sent at the same time."

It is hardly probable that many physicians will send their old instruments for verification,—it would cause too much dissatisfaction with past work; but there will be no excuse for buying in the future anything but perfectly correct instruments. The enhanced cost to the physician ought not to be over half a dollar at the outside, and the doctor owes it to himself and to his patients to see that his thermometer, if of American make, has a Yale certificate, or, if of English manufacture, a similar document from Kew. Were the profession so to insist, in a very short time the instrument-makers would cease from purchasing inferior stock.

PROCEEDINGS OF SOCIETIES.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

A CONVERSATIONAL meeting of the Society was held at the hall of the College of Physicians, Philadelphia, June 23, 1880, Dr. H. Lenox Hodge, Vice-President, in the chair.

Dr. Laurence Turnbull read a paper entitled "A Comparison between the Audiphone, Dentaphone, etc., and the Various Forms of Ear-Trumpets for the Deaf." (See p. 590.)

Dr. Cheston Morris had seen several cases in which galvanism appeared to be of great benefit in deafness of nervous origin, and reported a case where the improvement was marvellous; deafness had existed for several years.

Dr. Turnbull said that Duchenne recommended electricity in nervous deafness, such as that resulting from quinine. In cases where there has not been much change in the middle ear, he had used it with success.

Dr. H. Augustus Wilson agreed with the lecturer that continued experience would decide between the merits of the different instruments, and in the mean time we are bound to give our patients the benefit of a trial of what promises to relieve them.

Dr. Mills had used electricity in many cases, but had little personal experience with this class of cases. He believed that quinine caused a change in the molecular constitution of the nerves and nerve-centres. In cases of deafness resulting from cinchonism, electricity would doubtless do good. It is also of service in improving the tone of the muscles concerned in the mechanism of hearing.

Dr. W. R. D. Blackwood explained that the

reason why electricity had proved unsatisfactory in the hands of some practitioners was because they had only used the faradic current. He insisted upon short séances, the use of galvanism, and of very weak currents, carefully regulated by rheostatic coils or by filling the auditory electrode with water. He believed that the direction of the current had better be from the brain outward.

Dr. Aloysius Schapringer presented an ingenious audiphone, made for the use of a patient afflicted with rheumatoid arthritis and unable to hold the ordinary handle, which in this modification was represented by two curved supports, which, in use, rested upon the forearm of the patient, held in front of the chest, the elbow being bent at a right angle.

Dr. S. D. Risley had perceived in only one instance any benefit from the audiphone, although he had tried it with several hundred. In this patient, who had been operated upon for cataract, much assistance had been obtained from the audiphone, since she was so deaf that it was very difficult to obtain answers in order to make the necessary examination for glasses.

Dr. Hodge said that he had been informed that about three hundred audiphones had been sold in this city, while about four thousand deaf persons had tried them. Of these about one thousand stated that they had been benefited to a greater or less degree, so that the proportion might be stated as one in four who considered themselves aided by the audiphone, while a much smaller proportion considered the benefit sufficiently great to be worth paying for.

Dr. Turnbull said that he had been informed by the agent that only about sixty audiphones were satisfactory out of the many hundreds who came to try them. At the Deaf and Dumb Asylum it was less successful than was at first reported, and was of no use in teaching articulation. In his office he had made a comparison between the relative merits of the audiphone and the ear-trumpet, and had found a greater range of application for the latter. The proportion of cases benefited by electricity is larger than those improved by the mechanical appliances. He preferred the faradic current as being more stimulating.

REMOTE EFFECTS OF INJURIES TO THE CRANIUM.

Dr. Cheston Morris presented a specimen showing union after fracture of the base of the skull; the man lived for twenty years after the injury, which entirely changed his disposition, and ultimately made him insane. He also referred to other cases where injuries to the skull had been followed by lunacy.

Dr. Charles K. Mills referred to the celebrated case in which a tamping-iron was driven through the skull, and also to a clinical lecture on this subject by Dr. William Hunt, recently published in the *Medical News and Library*. Lesions of the anterior lobes of the cerebrum do not produce motor and sensory symptoms, no paralysis or other obvious effect is noticed, but psychical changes may generally be found, if sought for. There can be no large injury of the brain without symptoms. No consideration of this subject would be complete without a reference to the labors of Duret on Cerebral Traumatism, which have thrown much light upon the results of brain injuries. Owing to the structure of the cranium, it is to some extent elastic, while its contents are practically incompressible. The effects of impact and counter-stroke are to cause disorder in different parts of the brain. As a result of traumatism there may occur actual rupture from within outward of the pons-medullary region or of the spinal cord itself. Certain it is that local extravasations of blood may be produced by the impact, and that cerebral concussion would readily account for many symptoms. A very small clot may give rise to irritation, which will produce general convulsions. As regards the comparative effects of injury to the dura and pia mater, he believed that spasmodic symptoms are caused by the dura mater particularly. He repeated that we can only study cerebral injuries satisfactorily in the light of the researches of Duret.

Dr. John Ashhurst, Jr., had seen cases where epilepsy had followed fracture of the skull, and believed that Dr. Mills's views were thoroughly correct. Whenever he had had the opportunity of examining a brain after fracture of the skull he had found decided changes in the membranes and vessels. In regard to the view of counter-stroke, as produced by oscillations of the skull, he regarded it as the best explanation ever advanced of the cause of so-called injuries from counter-stroke, and agreed with the views already set forth by the speaker in a paper recently read before the Academy of Surgery.

Dr. R. J. Levis said that the fact that surgeons now recognize the importance of these after-effects is shown by the more frequent use of the trephine in injuries to the skull at the present day. He mentioned a case where a piece of the skull the size of the end of a hammer was driven in upon the brain, and the man was allowed to continue at his business. In about a year he became epileptic, and probably is so yet. Surgeons now are much more inclined to cut down upon an injured calvaria, and trephine in order to prevent remote effects, than formerly. In saying this he spoke the sentiments and practice of his colleagues at the Pennsylvania Hospital.

Dr. Morris was pleased with the remarks of the last speaker. He referred, in conclusion, to a case of a man who was thrown out of a carriage, who could hardly be persuaded to

remain in his bed. In a few days he refused to stay at home any longer, and went to Washington, where he remained three weeks, and from there to New York, where he had an attack resembling a sunstroke, after which he went to Boston, where he was ill with brain fever for a long time. After a sickness of more than six months, he recovered, and remained well for about three years, when he had another attack of similar character, and has continued to be subject to these attacks ever since. This train of symptoms is attributable to the early injury. The speaker expressed the opinion that many cerebral troubles of obscure character may be traced back to some old injury of the skull. He further referred to a man who was struck heavily upon the ear while boxing, who died several weeks afterwards with cerebral abscess. No doubt, in these old cases of brain injury, inflammation of a subacute character may be set up, which may eventuate in epilepsy and convulsions. The impaired blood-supply and modified nutrition have much to do with the symptoms, for tremor, epilepsy, and convulsions are largely due to disturbed blood-supply to the brain. Anything that will cause this disturbance will cause convulsions.

Dr. H. Lenox Hodge said that in injuries of the head we may have very violent symptoms follow of an epileptic character without any injury to the brain; they are simply reflex phenomena from lesions of the scalp. He had seen a case of epilepsy without depression of the skull to produce these paroxysms, which were entirely relieved by removing the tender cicatrix. This was a case of reflex epilepsy of the class first indicated by Brown-Séquard.

CUPRIC TEST-PELLETS FOR DIABETIC URINE.

Dr. John B. Roberts presented some cupric test-pellets made by Mr. McKelway for Dr. Jos. S. Neff, for the qualitative and quantitative determination of sugar in the urine.

Dr. F. Woodbury remarked that Dr. Pavy, of London, deserved the credit of introducing these test-pellets, as already mentioned in Dr. Neff's original article. These pellets approximate quite closely to the standard when first made, but subsequently change slightly on keeping, and from more or less attrition they lose weight. It is a question whether the old Trommer's test is not just as convenient for a qualitative examination.

Dr. Schapringer and Dr. Blackwood both favored the use of this easy test.

RECOVERING SOAP FROM SOAP-SUDS.—At Ivry-sur-Seine a manufactory of toilet soaps has prospered for a considerable time. The soap, which is perfumed with oil of roses, is obtained from the treatment of washing-water in Paris, which, instead of being run into the sewers, is now collected in casks.—*Druggists' and Chemists' Circular.*

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, JUNE 24, 1880.

The PRESIDENT, DR. S. W. GROSS, in the chair.

(Continued from page 584.)

Secondary sarcoma of the lungs. Presented by Dr. H. F. FORMAD for Dr. R. E. GIRVIN.

JOHN C., Jr., Philadelphian, age 36 years, laborer in Water Department. He served with the three-months men; after his discharge he re-enlisted for three years' service in the army. He suffered while there with what was pronounced rheumatism, especially affecting his left leg and ankle. Some eight months after his discharge the ankle troubled him greatly. He applied to a *veterinary surgeon*, who gave him a liniment, which by constant application relieved him for some five years.

In January, 1870, one inch below the internal malleolus of the left foot, a small pimple formed, which caused great pain, of a stinging and throbbing nature. He consulted a physician, who pronounced it a boil. Some weeks afterwards, not being satisfied, physician No. 2 was consulted; it was pronounced a tumor by him, but at the same time he requested the patient to go to Professor Gross, who diagnosed it a *nerve-tumor*. Three months later, physician No. 2 saw the man; he operated, and removed a small tumor about the size of a *hazel-nut*, which, upon examination, was found to have encased "a small, detached piece of bone." He was only temporarily relieved. Some six weeks subsequent to this the pain was just as severe as prior to the operation.

Eight months after this a second operation was performed, and a tumor the size of a minié-ball removed.

Even after this operation the tumor continued growing, and after two years it had reached the size of a *plum*, when operation No. 3 was performed for its removal.

During the years 1874 and 1875 the patient tried almost everything in the guise of a remedy. He at length gravitated into the hands of Indian doctors, quacks, etc.

On Easter Monday of 1875 Dr. Leaman examined the foot. Near the 1st of the following December he operated, and the tumor was pronounced "malignant sarcoma." The mass removed was the size of a *goose-egg*. The doctor scraped the bone thoroughly. The wound healed promptly, and he returned to work.

Three years from this date the tumor had again returned. It now was the size of a goose-egg, with another mass somewhat larger surrounding the ankle. Some time during 1878 he fell in with an electrician, who applied his battery to good effect, for after some time the mass softened and ruptured; from

time to time he removed portions of the tumor, followed by profuse hemorrhage. This was in December, 1878. Hemorrhages continued, and he became greatly emaciated.

In the early part of 1879 he was taken to the University Hospital. Professor Agnew there amputated the foot and lower third of the leg. Recovery was prompt, and he regained in flesh, after a six-weeks stay in the hospital, about fifty pounds.

Three months after leaving the hospital he complained of a sense of uneasiness in the breast. In August, 1879, while eating dinner, his mouth filled with blood. Each morning for some subsequent days he raised a little blood; through the night he raised small tough masses the size of a pea, slightly tinged with blood. This continued until he had a profuse hemorrhage. Now he consulted an experienced practitioner, who attended him during these attacks of hæmoptysis, which occurred at first twice daily, and afterwards every third day.

Preceding these attacks he would have a violent fit of coughing, which lasted until he coughed up a mass having a *tubular appearance*, resembling a solid quill, varying in size from one inch to three inches in length. He could tell almost to the hour when a hemorrhage was coming, and could detect these masses moving in the "bronchial tubes" until they were broken off and coughed out, followed by hemorrhage. From time to time hemorrhagic spots of a *dark-purple* color made their appearance upon the skin; these were quite painful to the touch; they disappeared in twenty-four hours.

At this time a consultation was held by the physician in charge. After consultation and microscopic examination of one of the masses, it was pronounced "diphtheritic bronchitis," and treated accordingly. These periodic attacks of hæmoptysis greatly reduced the patient in weight and strength.

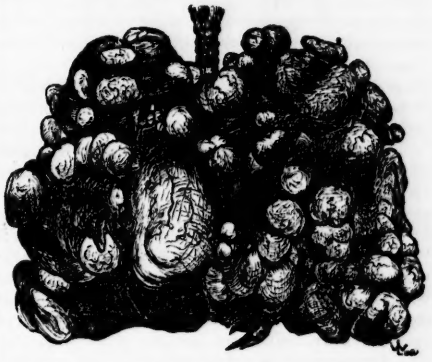
In November, 1879, I first became acquainted with the case. There was dulness, unaltered by position; weakened or absent breath-sounds over the greater portion of the lungs. The right lung was apparently useless, the left side of the chest only seeming to expand and do the work of carrying on respiration. Great dyspnœa and constant cough, with very little expectoration; night-sweats; the skin normal in appearance; no *cancerous tint.* Small masses were frequently found in the expectorated sputa. Twice such little masses had been sent to Dr. Formad without history, and were pronounced in his report "fragments of an organized new growth, evidently round-celled sarcoma."

This formed the basis for my diagnosis.

Patient died April 26, 1880.

Autopsy was held in the presence of Dr. Formad. The lung was found, upon exposure to view, to fill the thorax thoroughly. The surface of the lungs, as well as the parenchyma, was studded with numerous nodular masses of new growths, varying in size from one to six inches in diameter.

The macroscopical appearance of the lungs is very accurately shown in the accompanying drawing made by Dr. W. F. Lee:



The intercostal pleura was perfectly free from any deposit whatever; no pleuritic adhesions. The kidneys and liver were normal, only greatly congested. There were no enlargements of the mesenteric glands.

Microscopic examination of the new growth of the lung made by Dr. H. F. Formad showed it to be a small-celled, round-celled sarcoma of very typical structure.

Spindle-cell sarcoma of the lower jaw. Presented by Dr. J. EWING MEARS.

The specimen involved the greater portion of the body of the lower jaw, which was removed by operation from a boy 11 years of age. Ten months before the operation of removal was performed the boy was struck upon the jaw over the region of the left canine tooth, which was carious; soon after swelling appeared at this point, and continued until the growth reached the size to be observed in the specimen. Including the bone, which it embraces, the tumor is the size of a large lemon, projecting more from the external surface than from the internal, and extending laterally from the second bicuspid tooth of the left side to the first bicuspid tooth of the right side. On the left side the teeth were quite loose, being pushed from the alveoli and held by the soft structure of the tumor. On the right they are firmer, and not dislodged to the same extent as those on the left. Examination shows the tumor to have taken origin in the periosteum, and to have involved this membrane in its growth to the extent described. Microscopic examination reveals its structure to be that of a sarcoma of the spindle-cell variety. The growth was removed with the portion of the jaw involved, by making an incision along the inferior border of the bone from just in front of the anterior inferior angle of the masseter muscle on one side to the corresponding point on the

other, beginning and ending at these points, so as to avoid wounding the facial arteries. A short transverse incision from the symphysis of the jaw to within *one inch* of the *border* of the *lower lip* was also made, and the flaps dissected upward, in this way fully exposing the tumor. The muscular attachments, with the mucous membrane, were divided, and the bone sawn through on either side. The patient made a good recovery.

Necrosis of superior maxillary bone following typhoid fever. Presented by Dr. J. EWING MEARS.

The specimen of necrosis of superior maxillary bone was removed by operation from a boy 6 years of age, who had suffered from an attack of typhoid fever. The history given by the mother of the patient was as follows: "Fifteen weeks since, the boy was attacked with typhoid fever, and was quite ill for three weeks. During the fourth week of the disease the right side of the face gradually swelled, and, under the belief that an abscess was forming, a poultice was applied. Suppuration ensued, and a copious discharge of very offensive pus escaped. The teeth, as far forward as the canine, became loose, and were removed." The soft tissues gradually receded from the necrosed portion of bone, exposing the alveolar border. Although the dead bone felt quite firm in place, it was thought best to remove it, believing that it was detached and was held by the soft structures. These were accordingly separated by the knife, and the piece was grasped by the bone-forceps and dislodged. It measured one inch and a quarter from before backwards, and one inch from below upwards, and consisted of the greater portion of the body and alveolar process of the bone, with parts of the malar, nasal, and palatine processes.

The occurrence of necrosis of the jaws after attacks of exanthematous diseases, as smallpox, scarlet fever, and measles, is well established by the numerous instances which have been recorded, but is regarded by Mr. Salter (Holmes's Surgery) as rare after the continued fevers. Dr. Keen (Toner Lectures, 1877) also alludes to its rare occurrence *after* typhoid fever.

PHILADELPHIA ACADEMY OF SURGERY.

MEETING OF APRIL 5, 1880.

VICE-PRESIDENT D. HAYES AGNEW, M. D., in the chair.

DISCUSSION ON THE TREATMENT OF COMPOUND DISLOCATION OF THE ANKLE-JOINT.

[See Original Communications, p. 595.]

DR. ADDINELL HEWSON stated that his experience was not altogether definite in pointing to the treatment by amputation. He had gained a good result, with only slight resulting deformity, in a young person who had sustained a compound dislocation of the ankle. He had reduced the luxation, and then suspended the limb while keeping it lying on the fibular side.

Dr. William Hunt's experience in the Pennsylvania Hospital among adults led him, as a rule, to favor amputation. There was less risk in amputation than in conservatism, and a good point for the application of an artificial leg was attainable. If the shock would not permit a primary amputation, a secondary operation might be available.

Dr. Thomas G. Morton had at times made an incision, in order to get an opportunity to examine the parts, when he felt sure there was a fracture leading into the joint. In such cases he advised immediate amputation.

Dr. John H. Packard thought that each case should be treated upon its own merits and by no rigid law, for, though statistics showed that amputation at the lower third of the leg was favorable, the fact that the posterior tibial artery was intact would render conservative efforts justifiable in certain instances. The involvement of the tarsal bones in the injury was an important element to take into consideration, since the probable occurrence of subsequent necrosis would make the condition less favorable for conservative measures.

Dr. John Ashhurst, Jr., thought that several classes of injury were being confused in the discussion. When the astragalus was entirely dislocated there was much greater injury done to the soft parts than when only partial displacement occurred. Again, a fracture entering the joint made the case much more serious than a simple fracture of the fibula, though there might be a dislocation in either instance.

In Pott's fracture, with partial displacement of the astragalus, accompanied by a wound, there is no true dislocation, and conservative treatment without operation may be tried.

If there had occurred a true compound dislocation without fracture, and operation was required, he would prefer in young and healthy adults excision to amputation. If, however, there was compound luxation with fracture of a bad form, amputation was to be done. The danger in all these compound injuries arises from confined pus, and free escape for pus is certainly given by excision. In his opinion, complete excision of the astragalus was better than to attempt partial excision of the joint. Statistics show that primary excisions are not so unfavorable as they were formerly considered. When the joint was completely crushed, amputation would be done by all surgeons.

Dr. J. Ewing Mears mentioned in this connection a patient who died from pyæmia, after having refused to allow amputation for an injury of this kind, where great comminution existed.

Dr. D. Hayes Agnew stated that he would

invariably amputate in the hypothetical case presented by Dr. Brinton.

THE OBLIQUE INCISION IN OPERATIONS.

Dr. Packard desired to call attention to the advantage of oblique cutaneous incisions in avoiding scar and favoring immediate union. Two weeks previously he had removed a large breast by oblique incisions, and had dressed the wound with adhesive plaster and cerate, after securing the vessels with catgut. On the fifth day the wound had healed from end to end, and there had not been enough pus to soil the dressing. The method had been previously recommended by him, elsewhere, as a method of avoiding scar, but, as it seemed to promote union by first intention, probably because of the larger surface of contact, he desired to bring the subject to the notice of the Academy.

JOHN B. ROBERTS,
Recorder.

REVIEWS AND BOOK NOTICES.

THE HAIR: ITS GROWTH, CARE, DISEASES, AND TREATMENT. By C. HENRI LEONARD, M.A., M.D., Professor of Medical and Surgical Diseases of Women and Clinical Gynæcology in the Michigan College of Medicine, etc. Illustrated by one hundred and sixteen engravings. 8vo, pp. 315. Detroit, C. Henri Leonard, Medical Book Publisher, 1880.

Prof. Leonard tells us that his treatise is "of as much value to the laity as to the profession," and it is evident that he has had two classes of readers in his mind, for while the earlier chapters of the book contain much information with regard to the chemistry, anatomy, and physiology of the hair, other chapters are filled with anecdotes and legends, scraps of poetry, and more or less apt quotations from various prose writers, such as we have long been accustomed to find in popular works on the skin and hair. The mixture is not a happy one, for the book is too scientific in parts for the lay reader and much too superficial for the student. The absence of exact reference is a serious fault, for many of the statements made, which would be very interesting if true, cannot be verified, and are consequently worse than worthless.

Dr. Leonard has serious scruples with regard to lending himself to the pernicious custom of dyeing the hair, but coyly yields, not without a show of resistance, and gives a full chapter of formulas and directions, now and then begging his readers not to have anything to do with these deleterious cosmetics, and washing his hands of all responsibility in the matter. The earlier chapters are devoted to the physiology of the hair; the body of the book is taken up with a description of the various diseases of the scalp and hair, followed by chapters on customs of dressing the hair, etc.; and the work is concluded by a chapter on beards.

The most satisfactory portions of the work are those where the author gives his personal experience, but these are not numerous, and the rest of the book, although evidently the result of much reading and investigation, is rendered useless for the student by the absence of reference to authorities.

Dr. Leonard being Master of Arts as well as Professor, we cannot suppose him responsible for the almost innumerable literary and grammatical blunders which disfigure his book; but we are bound to say that his proof-reader has betrayed him shamefully, for a work so crammed with errors of this sort it has never before been our misfortune to have to read. A. V. H.

THE STUDENT'S MANUAL OF VENEREAL DISEASES. Being the University Lectures delivered at Charity Hospital, B. I., during the Winter Session of 1879–80. By F. R. STURGIS, M.D., Clinical Lecturer on Venereal Diseases in the Medical Department of the University of the City of New York, etc. New York, G. P. Putnam's Sons, 1880. 12mo, pp. 196.

Take it all in all, this is by far the most instructive and interesting manual of venereal diseases with which we are acquainted. Dr. Sturgis is a writer of reputation on these affections, and, though simple and elementary in its scope, his little book shows everywhere the hand of a master. The ground usually covered by treatises on venereal diseases is fully gone over, but by rigidly excluding all extraneous matter, by refraining from the discussion of mooted points and confining himself to the most concise description of the affections commonly met with, Dr. Sturgis has managed to include within the covers of his manual pretty much all that it is advisable for the student to know in order to cope with ninety-nine out of a hundred of those cases he is most apt to be called upon to treat. Added to this, Dr. Sturgis is master of an easy and attractive, though occasionally somewhat slipshod, style, and he has emphasized the important points by italics, which catch the eye, rivet the attention, and are apt to be retained in the memory. Without at all competing with the excellent works of larger size, like Bumstead and Taylor, of which the profession in this country is justly proud, Dr. Sturgis's book is invaluable for the student and practitioner. We regret to observe several errors of composition and grammar, with numerous typographical blunders. A. V. H.

THE MICROSCOPIST. Fourth Edition. By T. H. WYTHE, M.D. Philadelphia, Lindsay & Blakiston, 1880.

We cannot call to mind any medical book which bears such testimony to "Westward

ho!" as the rallying-cry of modern civilization. Here is a first-class scientific work issuing from the Western portals of the East, —from the doorway which opens to the great barbarism of Asia. The setting sun is almost vanquished.

In the present volume we have a great enlargement of previous editions by the addition of both text and illustrations until the former has swollen to nearly four hundred and fifty pages and the latter to over two hundred and fifty figures. The work is certainly more complete than it was, and can be commended as an excellent guide to the young or inexperienced microscopist. The old hands had better purchase such a book as the "Micrographic Dictionary," which is a library in itself.

THE VENEREAL DISEASES, INCLUDING STRICTURE OF THE MALE URETHRA. By E. L. KEYES, A.M., M.D., Professor of Dermatology and Adjunct Professor of Surgery in the Bellevue Hospital Medical College, etc. New York, William Wood & Co., 1880. 8vo, pp. 348.

The subscribers of Wood's Medical Library are fortunate in having so admirable a work as this included in the series for 1880. The name of Dr. Keyes is sufficient guarantee that the views presented are original as well as fully up to the level of our knowledge on the subject of which it treats. In scope Dr. Keyes's book occupies a middle place between exhaustive treatises, like that of Bumstead and Taylor, and elementary manuals, like that of Sturgis. Venereal diseases are treated systematically, all important points being dwelt upon and minor topics passed over without undue discussion. A large number of coarse but effective wood-cuts, from Dr. G. H. Fox's well-known photographic series, illustrate the text, and aid greatly in demonstrating the arrangement and distribution of the various lesions.

The typographical errors in this book would make angels weep. If Dr. Keyes can look with unmoved countenance on such a heading as that of "The pustulo-*bulbous* syphilide" (p. 160), he must have been hardened by the frequent sight of this extraordinary word on previous pages. A. V. H.

THE PRACTITIONER'S HAND-BOOK OF TREATMENT, OR THE PRINCIPLES OF THERAPEUTICS. By J. MILNER FOTHERGILL, M.D. Second American from the Second London Edition. Philadelphia, H. C. Lea's Son & Co., 1880.

This book was, in its original edition, carefully reviewed in this journal, and the opinion arrived at that it was an eminently practical and useful volume. The success predicted has been achieved, and we welcome the new edition as an improvement upon the old one, in that it contains certain additional discussions of important subjects, such as, When to Give Iron, The Means of Acting on the Respiratory Nerve-Centres, Artificial Digestion, Ovarian Irritation and its Reflex Consequences, etc.

THE SKIN IN HEALTH AND DISEASE. By L. DUNCAN BULKLEY, M.D., etc. AMERICAN HEALTH PRIMERS.—No. X. Philadelphia, Presley Blakiston, 1880.

Dr. Bulkley's reputation as a dermatologist insures the scientific accuracy of this popular work, and it may be added that the clear and concise manner in which the subject is treated makes it pleasant and, in most respects, profitable reading to the layman, and not without value to the physician other than specialist. We think Dr. Bulkley has made a mistake in including a miniature treatise on skin disease within the pages of his work. Nothing good can come of this course. The layman who sips of this Pierian spring of dermatological lore will obtain just that little knowledge which is so dangerous to himself and so trying to the physician, who may have to cope with his patient's "information" as well as with his disease. A. V. H.

GLEANINGS FROM EXCHANGES.

TREATMENT OF SPINAL CURVATURE BY HAMMOCK-SUSPENSION.—In the *British Medical Journal* for June 26, Mr. Richard Davy, the well-known orthopædic surgeon, publishes a lecture on this form of treatment. He takes exception to one or more points advocated by Sayre, these exceptions applying principally (1) to the risk and personal discomfort, both to the patient and surgeon, of the tripod suspension; (2) to the cracking, creasing, and consequent insufficiency of the support, due to the necessary shift of the patient's surroundings; (3) to the weight of the plaster of Paris.

Mr. Davy believes, as a result of numerous experiments with hammocks, that more spinal curvatures will be fortified in the manner to be described than after the suspension method of Sayre. The method is as follows. A piece of strong canvas is procured longer than the patient's height, and the arms are passed through two slits in the canvas at suitable points, so that in the first instance a loose, canvas, long apron, with ends, one turned downward over the chest and the other on the floor, fits round the front and sides of the body. This apron is then removed from the patient, and a vest applied of thicker material and far more open mesh than those usually supplied by the surgical instrument makers. The canvas hammock is next slung at two fixed points, by attaching its folded ends with two stout bandages; and the surgeon should test its bearing-power by the weight of his own body. The patient is placed in the canvas (as represented in an engraving) prone

on his belly. No dinner-pad is required, because the manipulations are performed after a good meal. At this stage an aperture is made over the patient's lips to permit free breathing and conversation. The patient is then finally localized in position according to the variety of spinal curvature (extension by the head, arms, and legs being applied by those surgeons who deem it to be necessary), and the surgeon leisurely applies the plaster of Paris or other fixing material, including the canvas, which, of course, has been accurately cut to fit the dorsal contour. After the bandages have been carefully laid on (and the ease of so doing is very great in this position), the patient presents the appearance of a person lying on his belly in a hammock, and bandaged in from shoulders to hips (as is well shown in another illustration).

The free current of air around the patient's body, and, if the surgeon please, the hammock's suspension near to a fire, facilitates the regular and simultaneously complete drying of the plaster; and so very comfortable are young children in these hammocks that they either enjoy the swinging motion or not unfrequently fall asleep. When the bandage has firmly set (and not before, for the patient can remain swung for any reasonable space of time), the whole hammock and patient are taken down; the superfluous ends are neatly cut off with scissors, the remnant of the hammock which is allowed to remain acting as an accessory vest to the patient's frame.

This hammock-suspension, Mr. Davy maintains, obviates all the inconveniences and risk to patients; secures the advantages of Sayre's method; facilitates the manual procedures of the surgeon; permits of quick and equable drying; and necessitates no change of posture between the application of the supporting bandage and its final setting.

Mr. Davy is experimenting on felt bandages saturated with a quickly-drying solution, to take the place of the heavy plaster of Paris. He can highly recommend a solution of plaster of Paris and hair intermixed. Any surgeon can carry the hammock and bandages in his coat-pocket, and so operate easily at the child's home instead of its being brought to the tripod. The cost of the hammock is trifling, and it may be extemporized out of a common sheet or a long night-gown.

PILOCARPIN IN ASTHMA.—Dr. J. B. Berkart (*British Med. Jour.*, 1880, vol. i. p. 960) recommends very highly the employment of pilocarpin in some forms of asthma, and adds notes of a number of cases in which he has employed this remedy by hypodermic medication in doses of one-fifth of a grain with success. In all his cases the asthmatic paroxysms were relieved speedily,—that is, within a few minutes; and that relief was due not merely to the suppression of the painful perception of the dyspnœa, but to the removal, as far as practicable, of its remote causes. Moreover, the improvement lasted long after the effects of the drug had passed off, and in several instances it was almost complete.

Klebs, it appears, has obtained equally favorable results by the same means. In the very obstinate forms of catarrhal inflammation of the lungs proceeding from cavities, which again and again return, usually accompanied by fever, but occasionally without it, he has never seen lasting benefit from the use of so-called expectorants. Here pilocarpin, one-sixth of a grain, applied by subcutaneous injection, has rendered the best services.

A drawback to the administration of pilocarpin may be supposed to exist, in that it occasionally produces nausea, and even collapse. However, these unpleasant after-effects may be to a great extent obviated by precautionary measures; and it is quite possible that the smaller dose which Klebs recommends may be sufficient also in the cases of asthmatics, and free from every inconvenience.

If, nevertheless, on that score objections were raised to its use, it needs but be remembered, to refute them, that most of the palliative remedies of asthma, especially the so-called depressants, are attended by very disagreeable symptoms, which often persist for days after their administration; and thus it will be found that, after all, the balance will be in favor of pilocarpin.

In all cases of chronic pneumonia in which the nutritive disturbance proceeds from the surface of the bronchi and gradually spreads to the stroma of the lungs, or in which it commences in the interstitial tissue and implicates the mucous membrane of the air-tubes,—whether the process terminates in atrophy or sclerosis,—there pilocarpin, provided the state of the heart offers no contra-indication, will prove beneficial. More speedily and more safely than any other remedy it relieves the congestion of the bronchial mucous membrane; favors the expulsion of the obstructing plug of the air-passages; prevents the formation of viscid mucus; diminishes the swelling of enlarged bronchial glands; and initiates a reparative process, if such be yet possible, in the infiltrated connective tissue of the lungs. Although in its effect it somewhat resembles that of a warm or, rather, of a Turkish bath, it is, for many reasons, preferable to the latter, even in the intervals between the asthmatic seizures, where alone there can be a question of substitution. To obtain, however, the full benefit it is capable of producing, pilocarpin should be used systematically. It should be injected at intervals commensurate with the forces and the other circumstances of the patient, until the pathological changes in the lungs of the patient are perceptibly improved.

A NEGLECTED SYMPTOM IN BREAST-CANCER.—Dr. Herbert L. Snow, of the Brompton Cancer Hospital, calls attention

(*Lancet*, 1880, vol. i. p. 912) to a symptom of cancer of the breast which is usually overlooked. He refers to a thickening of the humerus on the side corresponding to the diseased gland, accompanied by tenderness on pressure. This condition obtains mainly over the trochanters and the upper third of the bone. On firm pressure the patient complains of tenderness, which tenderness extends for a variable distance down the shaft beyond the part where thickening is apparent. The tenderness and thickening rarely interfere with the movements of the arm, and are never noticed by the patient before examination: they are detected only by digital pressure and comparison with the humerus on the opposite side. Occasionally (but not often) there is also some thickening of the clavicle. The condition never advances to any very marked hypertrophy. These symptoms are usually found early in the course of the disease, and simultaneously with the commencing enlargement of the axillary glands. Dr. Snow regards the thickening as a low form of periostitis consequent upon the deposit of cancer-germs in the medulla.

MISCELLANY.

GIOVANNI POLLI, a well-known Italian physician, died, after a long and tedious illness, on the 14th of June, in his 67th year. He was born in Milan in 1812, graduated in medicine in 1837, and in 1839 was assistant-professor of chemistry in the Lyceum of St. Alexander. He gradually rose until, in 1860, he was appointed Professor of Applied Chemistry in the Royal Institute of Technology. Among his numerous and important works may be mentioned his investigations on diseases of fermentation origin (1860–62), with his observations of the action of sulphurous acid and sulphites on zymotic diseases, which he submitted to the congress held at Dublin in 1867; also papers upon the anti-fermentative influence of boracic acid and its therapeutical applications came from his pen.

PROFESSOR RIZZOLI, who died recently at Bologna, at the age of 70, was a man of most liberal tendencies, and universally respected as much for his social qualities as for his scientific attainments. Just previous to his death he made a donation of one million two hundred and fifty thousand francs to the city of Bologna, to be devoted to the erection and maintenance of an orthopædic institute.

PROFESSOR FERDINAND VON HEBRA, the distinguished dermatologist, died in Vienna on August 5, at the age of 64.

POISONOUS DYES.—A correspondent of the *Lancet* of June 5 gives the case of a young lady who had worn a pair of cardinal-red silk stockings for three days, and who was attacked at the end of that time with an erysipelatous inflammation of both feet and toes. The top of one great toe subsequently became gangrenous and sloughed off. The patient was for a long time very ill.

A LITTLE bicarbonate of sodium added to the water in which the hands are washed after applying plaster-of-Paris bandages immediately removes the plaster.—*Western Lancet.*

NOTES AND QUERIES.

TO THE EDITOR OF THE *Philadelphia Medical Times:*

DEAR DOCTOR,—In the issue of the *Times* for July 17 appeared an editorial on consultations, which has called forth much comment among the younger members of the profession. As one of this class, I think I can safely assert that most of us heartily endorse the sentiments you express, and much regret the prevailing infrequency of consultations. Very, very often we would be glad to call to our aid the broader knowledge, the keener insight, and the larger experience of older men. Then, why do we not call them? The reason is not far to seek. In the editorial referred to it is said, "If he [the consultant] is called in by the family doctor, he is bound by every tie of equity, and also of self-interest, to refuse to attend the family subsequently, even if pressed to do so." Unfortunately, we have learned that "equity and self-interest" combined are not strong enough to restrain some prominent physicians from appropriating our patients at the first opportunity. Such conduct is, of course, unprofessional, wrong, and bad; but what can we do? These men have established reputations; we have not. They will care no more for our protests than the physiologist does for the whinings of a vivisected dog. Unable to protect ourselves against the abuse of consultations, we avoid them. When perplexed, we have recourse to our books and to conversations with our class-mates,—men no wiser than ourselves. Without doubt, there are men high in the profession who are punctiliously honorable to their younger brethren; but there are a good many upon whom obligations of this kind rest very lightly.

Yours, respectfully,

J. W. W.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM AUGUST 8 TO AUGUST 21, 1880.

MCKEE, J. C., MAJOR AND SURGEON.—Granted leave of absence for one year on Surgeon's certificate of disability. S. O. 177, A. G. O., August 19, 1880.

HAPPERSETT, J. C. G., MAJOR AND SURGEON.—At the expiration of his present leave of absence, to report to the Commanding Officer, Fort Ringgold, Texas, for duty as Post-Surgeon. S. O. 161, Department of Texas, August 10, 1880.

TAYLOR, M. K., CAPTAIN AND ASSISTANT-SURGEON.—Assigned to duty as Post-Surgeon at Fort Concho, Texas. S. O. 161, c. s., Department of Texas.

O'REILLY, R. M., CAPTAIN AND ASSISTANT-SURGEON.—His leave of absence on account of sickness extended four months on Surgeon's certificate of disability. Relieved from duty in Department of the South, and at expiration of his present leave of absence to report by letter to the Surgeon-General. S. O. 174, A. G. O., August 16, 1880.

HAVARD, V., CAPTAIN AND ASSISTANT-SURGEON.—To proceed to Fort Clark, Texas, and report to the Commanding Officer First Infantry for duty with his command. S. O. 158, Department of Texas, August 8, 1880.

MOSELEY, E. B., CAPTAIN AND ASSISTANT-SURGEON.—His leave of absence extended ten days, with permission to apply for a further extension of two months. S. O. 75, Department of the Platte, August 17, 1880.

CARTER, W. F., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—When relieved by Assistant-Surgeon Taylor, to report to Commanding Officer, Post of San Diego, Texas, for duty as Post-Surgeon. S. O. 161, c. s., Department of Texas.